

**DRAFT**

NOV 06 1990

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Site Name: Monsanto Co.

Date: 5/21/91

02-90052

## SITE SCORE CALCULATION

	S	S <sup>2</sup>
GROUND WATER PATHWAY SCORE (S <sub>gw</sub> ):	22.44	503.55
SURFACE WATER PATHWAY SCORE (S <sub>sw</sub> ):	2.04	4.16
SOIL EXPOSURE PATHWAY SCORE (S <sub>so</sub> ):	2.6	6.76
AIR PATHWAY SCORE (S <sub>a</sub> ):	2.73	7.45
SITE SCORE:	$\sqrt{\frac{S_{gw}^2 + S_{sw}^2 + S_{so}^2 + S_a^2}{4}}$	11.42

DECLASSIFIED

Date: 5/2/18 Initial: JH

247752



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Site Name: *MDASanto Co.*  
Date: *5/21/91*

PA TABLE 1: WASTE CHARACTERISTICS (WC) SCORES

PA Table 1a: WC Scores for Single Source Sites and Formulas for Multiple Source Sites

02-9005-07

TIER	SOURCE TYPE	SINGLE SOURCE SITES (assigned WC scores)			MULTIPLE SOURCE SITES
		<i>WC = 18</i>	<i>WC = 32</i>	<i>WC = 100</i>	
CONSTITUENT	N/A	$\leq 100$ lbs	$> 100$ to 10,000 lbs	$> 10,000$ lbs	$\text{lbs} + 1$
WATERBODIES	N/A	$\leq 500,000$ lbs	$> 500,000$ to 50 million lbs	$> 50$ million lbs	$\text{lbs} + 5,000$
VOLUME	Landfill	$\leq 6.75$ million $\text{ft}^3$ $\leq 250,000$ $\text{yd}^3$	$> 6.75$ million $\text{ft}^3$ to 675 million $\text{ft}^3$ $> 250,000$ to 25 million $\text{yd}^3$	$> 675$ million $\text{ft}^3$ $> 25$ million $\text{yd}^3$	$\text{ft}^3 + 67,500$ $\text{yd}^3 + 2,500$
	Surface impoundment	$\leq 6,750$ $\text{ft}^3$ $\leq 250$ $\text{yd}^3$	$> 6,750$ $\text{ft}^3$ to 675,000 $\text{ft}^3$ $> 250$ to 25,000 $\text{yd}^3$	$> 675,000$ $\text{ft}^3$ $> 25,000$ $\text{yd}^3$	$\text{ft}^3 + 67.5$ $\text{yd}^3 + 2.5$
	Drums	$\leq 1,000$ drums	$> 1,000$ to 100,000 drums	$> 100,000$ drums	$\text{drums} + 10$
	Tanks and non-drum containers	$\leq 50,000$ gallons	$> 50,000$ to 5 million gallons	$> 5$ million gallons	$\text{gallons} + 500$
	Contaminated soil	$\leq 6.75$ million $\text{ft}^3$ $\leq 250,000$ $\text{yd}^3$	$> 6.75$ million $\text{ft}^3$ to 675 million $\text{ft}^3$ $> 250,000$ to 25 million $\text{yd}^3$	$> 675$ million $\text{ft}^3$ $> 25$ million $\text{yd}^3$	$\text{ft}^3 + 67,500$ $\text{yd}^3 + 2,500$
AREA	Pile	$\leq 6,750$ $\text{ft}^3$ $\leq 250$ $\text{yd}^3$	$> 6,750$ $\text{ft}^3$ to 675,000 $\text{ft}^3$ $> 250$ to 25,000 $\text{yd}^3$	$> 675,000$ $\text{ft}^3$ $> 25,000$ $\text{yd}^3$	$\text{ft}^3 + 67.5$ $\text{yd}^3 + 2.5$
	Landfill	$\leq 340,000$ $\text{ft}^3$ $\leq 7.8$ acres	$> 340,000$ to 34 million $\text{ft}^3$ $> 7.8$ to 780 acres	$> 34$ million $\text{ft}^3$ $> 780$ acres	$\text{ft}^3 + 3,400$ $\text{acres} + 0.078$
	Surface impoundment	$\leq 1,300$ $\text{ft}^3$ $\leq 0.029$ acres	$> 1,300$ to 130,000 $\text{ft}^3$ $> 0.029$ to 2.9 acres	$> 130,000$ $\text{ft}^3$ $> 2.9$ acres	$\text{ft}^3 + 13$ $\text{acres} + 0.00029$
	<u>Contaminated soil</u>	<i><math>\leq 3.4</math> million <math>\text{ft}^3</math> <math>\leq 78</math> acres</i>	$> 3.4$ million to 340 million $\text{ft}^3$ $> 78$ to 7,800 acres	$> 340$ million $\text{ft}^3$ $> 7,800$ acres	$\text{ft}^3 + 34,000$ $\text{acres} + 0.78$
	Pile*	$\leq 1,300$ $\text{ft}^3$ $\leq 0.029$ acres	$> 1,300$ to 130,000 $\text{ft}^3$ $> 0.029$ to 2.9 acres	$> 130,000$ $\text{ft}^3$ $> 2.9$ acres	$\text{ft}^3 + 13$ $\text{acres} + 0.00029$
	Land treatment	$\leq 27,000$ $\text{ft}^3$ $\leq 0.62$ acres	$> 27,000$ to 2.7 million $\text{ft}^3$ $> 0.62$ to 62 acres	$> 2.7$ million $\text{ft}^3$ $> 62$ acres	$\text{ft}^3 + 270$ $\text{acres} + 0.0062$

1 ton = 2,000 lbs = 1  $\text{yd}^3$  = 4 drums = 200 gallons

\* Use area of land surface under pile, not surface area of pile.

PA Table 1b: WC Scores for Multiple Source Sites

WQ Total	WC Score
$> 0$ to 100	18
$> 100$ to 10,000	32
$> 10,000$	100

Site Name: Monsanto Co.  
Date: 5/21/91

GROUND WATER PATHWAY SCORESHEET

02-9005-07

Pathway Characteristics	
Do you suspect a release (see Ground Water Pathway Criteria List, page 7)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Is the site located in karst terrain?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Depth to aquifer:	<u>0-7 ft</u>
Distance to the nearest drinking-water well:	<u>1900 ft</u>

LIKELIHOOD OF RELEASE

- SUSPECTED RELEASE:** If you suspect a release to ground water (see page 7), assign a score of 550, and use only column A for this pathway.
- NO SUSPECTED RELEASE:** If you do not suspect a release to ground water, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Use only column B for this pathway.

LR =

A	B
Suspected Release	No Suspected Release
550	
550	

References

12, 13, 14

TARGETS

- PRIMARY TARGET POPULATION:** Determine the number of people served by drinking water from wells that you suspect have been exposed to hazardous substances from the site (see Ground Water Pathway Criteria List, page 7).  
\_\_\_\_\_ people x 10 =
- SECONDARY TARGET POPULATION:** Determine the number of people served by drinking water from wells that you do NOT suspect have been exposed to hazardous substances from the site, and assign the total population score from PA Table 2.  
Are any wells part of a blended system? Yes ☐ No ☐  
If yes, attach a page to show apportionment calculations.
- NEAREST WELL:** If you have identified any Primary Targets for ground water, assign a score of 50; otherwise, assign the highest Nearest Well score from PA Table 2. If no drinking-water wells exist within 4 miles, assign a score of zero.
- WELLHEAD PROTECTION AREA (WHPA):** Assign a score of 20 if any portion of a designated WHPA is within 1/4 mile of the site; assign 5 if from 1/4 to 4 miles.
- RESOURCES:** A score of 5 is assigned.

T =

164	
18	
0	
5	5
187	

16, 18

16, 18

8

WASTE CHARACTERISTICS

- If you have identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.
- If you have NOT identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4.

WC =

18	
18	

GROUND WATER PATHWAY SCORE:

$$\frac{LR \times T \times WC}{82.500}$$

22.44

Monsanto Co.

Site Name:

Date: 5/21/91

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PA TABLE 2: VALUES FOR SECONDARY GROUND WATER TARGET POPULATIONS

PA Table 2a: Non-Karst Aquifers

Distance from Site	Population	Nearest Well (choose highest)	Population Served by Wells Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 1,000,000	
0 to 1/4 mile	0	20	1	2	5	16	52	163	521	1,633	5,214	16,325	
> 1/4 to 1/2 mile	4	18	1	1	3	10	32	101	323	1,012	3,233	10,121	1
> 1/2 to 1 mile	0	9	1	1	2	5	17	52	167	522	1,668	5,224	
> 1 to 2 miles	8277	5	1	1	1	3	9	29	94	294	939	2,938	94
> 2 to 3 miles	8322	3	1	1	1	2	7	21	68	212	678	2,122	68
> 3 to 4 miles	57	2	1	1	1	1	4	13	42	131	417	1,306	1
Nearest Well =		18	Score =										164

PA Table 2b: Karst Aquifers

Distance from Site	Population	Nearest Well (use 20 for karst)	Population Served by Wells Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 1,000,000	
0 to 1/4 mile		20	1	2	5	16	52	163	521	1,633	5,214	16,325	
> 1/4 to 1/2 mile		20	1	1	3	10	32	101	323	1,012	3,233	10,121	
> 1/2 to 1 mile		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 1 to 2 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 2 to 3 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 3 to 4 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
Nearest Well =			Score =										

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Site Name: Monsanto Co.

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SURFACE WATER PATHWAY  
LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Surface Water Pathway Criteria List, page 11)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Distance to surface water:	<u>400</u> feet
Flood Frequency:	<u>7500</u> yrs
What is the downstream distance to the nearest drinking-water intake?	<u>NA</u> miles
nearest fishery? <u>approx. 4</u> miles	nearest sensitive environment? <u>NA</u> miles

## LIKELIHOOD OF RELEASE

A	B
Suspected Release	No Suspected Release
550	500, 400, 300 = 100
LR = 550	500, 400, 300 = 100

References

13, 14

1. SUSPECTED RELEASE: If you suspect a release to surface water (see page 11), assign a score of 550, and use only column A for this pathway.
2. NO SUSPECTED RELEASE: If you do not suspect a release to surface water, and the distance to surface water is 2,500 feet or less, assign a score of 500; otherwise, assign a score from the table below. Use only column B for this pathway.

Floodplain	Score
Site in annual or 10-yr floodplain	500
Site in 100-yr floodplain	400
Site in 500-yr floodplain	300
Site outside 500-yr floodplain	100

## DRINKING WATER THREAT TARGETS

3. Determine the water body types, flows (if applicable), and number of people served by all drinking-water intakes within the 15-mile target distance limit. If there are no drinking-water intakes within the target distance limit, assign a total Targets score of 5 at the bottom of this page (Resources only) and proceed to page 14.

Intake Name	Water Body Type	Flow	People Served
		cfs	
		cfs	
		cfs	

4. PRIMARY TARGET POPULATION: If you suspect any drinking-water intake listed above has been exposed to hazardous substances from the site (see Surface Water Pathway Criteria List, page 11), list the intake name(s) and calculate the factor score based on the number of people served.

\_\_\_\_\_ people x 10 = \_\_\_\_\_

5. SECONDARY TARGET POPULATION: Determine the Secondary Target Population score from PA Table 3 based on the populations using drinking-water from intakes that you do NOT suspect have been exposed to hazardous substances from the site.

Are any intakes part of a blended system? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, attach a page to show apportionment calculations.

6. NEAREST INTAKE: If you have identified any Primary Targets for the drinking water threat (Factor 4), assign a score of 50; otherwise, assign the Nearest Intake score from PA Table 3. If no drinking-water intake exists within the 15-mile target distance limit, assign a score of zero.

7. RESOURCES: A score of 5 is assigned.

T =

5

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PA TABLE 3: VALUES FOR SECONDARY SURFACE WATER TARGET POPULATIONS

Surface Water Body Flow Characteristics (see PA Table 4)	Population	Nearest Intake (choose highest)	Population Served by Intakes Within Flow Category											Population Value
			1 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,001 to 1,000,000	
< 10 cfs	_____	20	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,248	_____
10 to 100 cfs	_____	2	1	1	2	5	16	52	163	521	1,633	5,214	16,325	_____
> 100 to 1,000 cfs	_____	1	0	0	1	1	2	5	16	52	163	521	1,633	_____
> 1,000 to 10,000 cfs	_____	0	0	0	0	0	1	1	2	5	16	52	163	_____
> 10,000 cfs or Great Lakes	_____	0	0	0	0	0	0	0	1	1	2	5	16	_____
3-mile Mixing Zone	_____	10	1	3	8	28	82	261	816	2,607	8,162	26,068	81,663	_____
Nearest Intake = _____														Score = _____

PA TABLE 4: SURFACE WATER TYPE / FLOW CHARACTERISTICS WITH DILUTION WEIGHTS FOR SECONDARY SURFACE WATER SENSITIVE ENVIRONMENTS

Type of Surface Water Body		Dilution Weight
Water Body Type	OR Flow Characteristics	
minimal stream	flow less than 10 cfs	1
small to moderate stream	flow 10 to 100 cfs	0.1
moderate to large stream	flow greater than 100 to 1,000 cfs	N/A
large stream to river	flow greater than 1,000 to 10,000 cfs	N/A
large river	flow greater than 10,000 cfs	N/A
3 mile mixing zone of quiet flowing streams or rivers	flow 10 cfs or greater	N/A
coastal tidal water (harbors, sounds, bays, etc.), ocean, or Great Lakes	N/A	N/A

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SURFACE WATER PATHWAY (continued)  
HUMAN FOOD CHAIN THREAT SCORESHEET

A

B

## LIKELIHOOD OF RELEASE

Suspected  
ReleaseNo Suspected  
Release

References

Enter the Surface Water Likelihood of Release score from page 12.

LR =

550

## HUMAN FOOD CHAIN THREAT TARGETS

8. Determine the water body types and flows (if applicable) for all fisheries within the 15-mile target distance limit. If there are no fisheries within the target distance limit, assign a Targets score of 0 at the bottom of this page and proceed to page 15.

Fishery Name	Water Body Type	Flow
Delaware River	River	>10,000 cfs
		cfs
		cfs
		cfs
		cfs

9. PRIMARY FISHERIES: If you suspect any fishery listed above has been exposed to hazardous substances from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 10. List the Primary Fisheries:

\_\_\_\_\_  
\_\_\_\_\_

10. SECONDARY FISHERIES: If you have not identified any Primary Fisheries, assign a Secondary Fisheries score from the table below using the LOWEST flow at any fishery within the 15-mile target distance limit.

Lowest Flow	Secondary Fisheries Score
< 10 cfs	210
10 to 100 cfs	30
> 100 cfs, coastal tidal waters, oceans, or Great Lakes	12

T =

12

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Site Name: *Mohsanto Co.*Date: *5/21/91*

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SURFACE WATER PATHWAY (continued)  
ENVIRONMENTAL THREAT SCORE SHEET

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## LIKELIHOOD OF RELEASE

A

B

Suspected  
ReleaseNo Suspected  
Release

Referen

Enter the Surface Water Likelihood of Release score from page 12.

LR =

550

500 400 300 200 100

## ENVIRONMENTAL THREAT TARGETS

11. Determine the water body types and flows (if applicable) for all surface water sensitive environments within the 15-mile target distance limit (see PA Tables 4 and 5). If there are no sensitive environments within the 15-mile target distance limit, assign a Targets score of 0 at the bottom of this page, and proceed to page 17.

Environment Name	Water Body Type	Flow
		cfs
		cfs
		cfs
		cfs
		cfs

12. PRIMARY SENSITIVE ENVIRONMENTS: If you suspect any sensitive environment listed above has been exposed to hazardous substances from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 13. List the Primary Sensitive Environments:

\_\_\_\_\_  
\_\_\_\_\_

13. SECONDARY SENSITIVE ENVIRONMENTS:

- A. For Secondary Sensitive Environments on surface water bodies with flows of 100 cfs or less, assign scores as follows, and do not evaluate part B of this factor:

Flow	Dilution Weight (PA Table 4)	Environment Type and Value (PA Tables 5 and 6)	Total
cfs	x	=	
cfs	x	=	
cfs	x	=	
cfs	x	=	
cfs	x	=	

Sum =

- B. If NO Secondary Sensitive Environments are located on surface water bodies with flows of 100 cfs or less, assign a score of 10.

T =

0

0



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Date: 5/21/91

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PA TABLE 5: SURFACE WATER AND AIR SENSITIVE ENVIRONMENTS VALUES

<i>Sensitive Environment</i>	<i>Assigned Value</i>
Critical habitat for Federally designated endangered or threatened species	100
Marine Sanctuary	
National Park	
Designated Federal Wilderness Area	
Ecologically important areas identified under the Coastal Zone Wilderness Act	
Sensitive Areas identified under the National Estuary Program or Near Coastal Water Program of the Clean Water Act	
Critical Areas identified under the Clean Lakes Program of the Clean Water Act (subareas in lakes or entire small lakes)	
National Monument	
National Seashore Recreation Area	
National Lakeshore Recreation Area	
Habitat known to be used by Federally designated or proposed endangered or threatened species	75
National Preserve	
National or State Wildlife Refuge	
Unit of Coastal Barrier Resources System	
Federal land designated for the protection of natural ecosystems	
Administratively Proposed Federal Wilderness Area	
Spawning areas critical for the maintenance of fish/shellfish species within a river system, bay or estuary	
Migratory pathways and feeding areas critical for the maintenance of anadromous fish species in a river system	
Terrestrial areas utilized by large or dense aggregations of vertebrate animals (semi-aquatic foragers) for breeding	
National river reach designated as recreational	
Habitat known to be used by State designated endangered or threatened species	50
Habitat known to be used by a species under review as to its Federal endangered or threatened status	
Coastal Barrier (partially developed)	
Federally designated Scenic or Wild River	
State land designated for wildlife or game management	25
State designated Scenic or Wild River	
State designated Natural Area	
Particular areas, relatively small in size, important to maintenance of unique biotic communities	
State designated areas for the protection/maintenance of aquatic life under the Clean Water Act	5
Wetlands	See PA Table 6 (Surface Water Pathway) or PA Table 9 (Air Pathway)

PA TABLE 6: SURFACE WATER  
WETLANDS FRONTAGE VALUES

<i>Total Length of Wetlands</i>	<i>Assigned Value</i>
Less than 0.1 mile	0
0.1 to 1 mile	25
Greater than 1 to 2 miles	50
Greater than 2 to 3 miles	75
Greater than 3 to 4 miles	100
Greater than 4 to 8 miles	150
Greater than 8 to 12 miles	250
Greater than 12 to 16 miles	350
Greater than 16 to 20 miles	450
Greater than 20 miles	500

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**SURFACE WATER PATHWAY (concluded)  
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY**

WASTE CHARACTERISTICS	A	B
	<i>Suspected Release</i>	<i>No Suspected Release</i>
1. A. If you have identified ANY Primary Targets for surface water (pages 12, 14, or 15), assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	<small>DO NOT</small>	
3. If you have NOT identified any Primary Targets for surface water, assign the waste characteristics score calculated on page 4.	<small>DO NOT</small> 18	<small>DO NOT</small>
WC =	18	

**SURFACE WATER PATHWAY THREAT SCORES**

Threat	<i>Likelihood of Release (LR) Score (from page 12)</i>	<i>Targets (T) Score</i>	<i>Pathway Waste Characteristics (WC) Score (determined above)</i>	<i>Threat Score LR x T x WC / 82.500</i>
Drinking Water	550	5	18	<small>DO NOT</small> 0.60
Human Food Chain	550	12	18	<small>DO NOT</small> 1.44
Environmental	550	0	18	<small>DO NOT</small> 0

**SURFACE WATER PATHWAY SCORE**  
(Drinking Water Threat + Human Food Chain Threat + Environmental Threat)DO NOT  
2.04

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## SOIL EXPOSURE PATHWAY SCORESHEET

Pathway Characteristics	
Do any people live on or within 200 ft of areas of suspected contamination?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Do any people attend school or day care on or within 200 ft of areas of suspected contamination?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is the facility active? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If yes, estimate the number of workers: _____

## LIKELIHOOD OF EXPOSURE

	A Suspected Contamination	B No Suspected Contamination	References
1. SUSPECTED CONTAMINATION: Surficial contamination is assumed. A score of 550 is assigned. LE =	550		12, 14, 17

## RESIDENT POPULATION THREAT TARGETS

2. RESIDENT POPULATION: Determine the number of people occupying residences or attending school or day care on or within 200 feet of areas of suspected contamination (see Soil Exposure Pathway Criteria List, page 18).

\_\_\_\_\_ people x 10 =

3. RESIDENT INDIVIDUAL: If you have identified any Resident Population (Factor 2), assign a score of 50; otherwise, assign a score of 0.

4. WORKERS: Assign a score from the following table based on the total number of workers at the facility and nearby facilities with suspected contamination:

Number of Workers	Score
0	0
1 to 100	5
101 to 1,000	10
> 1,000	15

5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Assign a value from PA Table 7 for each terrestrial sensitive environment that is located on an area of suspected contamination:

Terrestrial Sensitive Environment Type	Value
_____	_____
_____	_____
_____	_____

Sum =

6. RESOURCES: A score of 5 is assigned.

T =

## WASTE CHARACTERISTICS

7. Assign the waste characteristics score calculated on page 4. WC =	18	
--	----	--

RESIDENT POPULATION THREAT SCORE:

LE x T x WC

82.500

NEARBY POPULATION THREAT SCORE:

Assign a score of 2

SOIL EXPOSURE PATHWAY SCORE:

Resident Population Threat + Nearby Population Threat

(Rounded to a maximum of 1,000)

2.60

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Site Name: *Monsanto Co.*Date: *5/21/91**02-9005-07*

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## AIR PATHWAY SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Air Pathway Criteria List, page 21)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Distance to the nearest individual:	

## LIKELIHOOD OF RELEASE

	A Suspected Release	B No Suspected Release	References
1. SUSPECTED RELEASE: If you suspect a release to air (see page 21), assign a score of 550, and use only column A for this pathway.	550		
2. NO SUSPECTED RELEASE: If you do not suspect a release to air, assign a score of 500, and use only column B for this pathway.		500	
LR =		500	

## TARGETS

3. PRIMARY TARGET POPULATION: Determine the number of people subject to exposure from a release of hazardous substances through the air (see Air Pathway Criteria List, page 21). <div>_____ people x 10 =</div>									
4. SECONDARY TARGET POPULATION: Determine the number of people within the 4-mile target distance limit, and assign the total population score from PA Table 8.		18	2						
5. NEAREST INDIVIDUAL: If you have identified any Primary Targets for the air pathway, assign a score of 50; otherwise, assign the highest Nearest Individual score from PA Table 8.		2	2						
6. PRIMARY SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (PA Table 5) and wetland acreage values (PA Table 9) for environments subject to exposure from air hazardous substances (see Air Pathway Criteria List, page 21). <table><tr><th>Sensitive Environment Type</th><th>Value</th></tr><tr><td>_____</td><td>_____</td></tr><tr><td>_____</td><td>_____</td></tr></table>	Sensitive Environment Type	Value	_____	_____	_____	_____			
Sensitive Environment Type	Value								
_____	_____								
_____	_____								
7. SECONDARY SENSITIVE ENVIRONMENTS: Use PA Table 10 to determine the score for secondary sensitive environments.		0							
8. RESOURCES: A score of 5 is assigned.		5							
<div>T =</div>		25							

## WASTE CHARACTERISTICS

9. A. If you have identified any Primary Targets for the air pathway, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.		
B. If you have NOT identified any Primary Targets for the air pathway, assign the waste characteristics score calculated on page 4.		18
WC =		18

AIR PATHWAY SCORE:

$$\frac{LR \times T \times WC}{82,500}$$

(subject to a maximum of 100)

*2.73*

Site Name: Monsanto Co.  
 Date: 5/21/91  
02-9005-07

PA TABLE 8: VALUES FOR SECONDARY AIR TARGET POPULATIONS

Distance from Site	Population	Nearest Individual (choose highest)	Population Within Distance Category												Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,001 to 1,000,000	
Onsite	<u>0</u>	20	1	2	5	18	52	163	521	1,633	5,214	16,325	52,136	163,246	
>0 to 1/4 mile	<u>0</u>	30	1	1	1	4	13	41	130	408	1,303	4,081	13,034	40,811	
> 1/4 to 1/2 mile	<u>235</u>	<u>(2)</u>	0	0	1	<u>(1)</u>	3	9	28	88	282	882	2,815	8,815	<u>1</u>
> 1/2 to 1 mile	<u>2604</u>	1	0	0	0	1	1	<u>(3)</u>	8	26	83	261	834	2,612	<u>3</u>
> 1 to 2 miles	<u>14843</u>	0	0	0	0	0	1	1	3	<u>(8)</u>	27	83	266	833	<u>8</u>
> 2 to 3 miles	<u>23877</u>	0	0	0	0	0	1	1	1	<u>(4)</u>	12	38	120	376	<u>4</u>
> 3 to 4 miles	<u>24702</u>	0	0	0	0	0	0	1	1	<u>(2)</u>	7	23	73	229	<u>2</u>
Nearest Individual =		<u>2</u>													Score = <u>18</u>

PA TABLE 9: AIR PATHWAY VALUES FOR WETLAND AREA

Wetland Area	Assigned Value
Less than 1 acre	0
1 to 50 acres	25
Greater than 50 to 100 acres	75
Greater than 100 to 150 acres	125
Greater than 150 to 200 acres	175
Greater than 200 to 300 acres	250
Greater than 300 to 400 acres	350
Greater than 400 to 500 acres	450
Greater than 500 acres	500

PA TABLE 10: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY SECONDARY SENSITIVE ENVIRONMENTS

Distance	Distance Weight	Sensitive Environment Type and Value (from PA Table 8 or 9)	Product
Onsite	0.10	x	
		x	
0-1/4 mi	0.025	x	
		x	
1/4-1/2 mi	0.0054	x	
		x	
		x	
Total Environments Score =			